

THE CASCADING EFFECT OF SOCIAL CAPITAL: FROM PARENTING TO MEDIATING  
YOUTHS' ENGAGEMENT IN HIV RISK BEHAVIOR

By

Lauren Brinkley-Rubinstein

Submitted to the Faculty of the  
Graduate School of Vanderbilt University

in partial fulfillment of the requirements

for the degree of

MASTER OF SCIENCE

in

Community Research and Action

December, 2011

Nashville, Tennessee

Approved:

Velma M. Murry

Doug Perkins

## ACKNOWLEDGEMENTS

The author would like to acknowledge the funders of the Strong African American Families Project (SAAF): The National Institute of Mental Health (#R01MH063043) and the Principal Investigator of the project Velma McBride Murry for making this research possible. Additionally, I would like to thank Doug Perkins for his guidance and Krista Craven, Holly Wegman, Maria Hopkins and Eric Rubinstein for their continual proof reading, editing and moral support.

## TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	ii
LIST OF FIGURES .....	iv
INTRODUCTION .....	1
REVIEW OF LITERATURE .....	4
Brief Overview of the Conceptualization of Social Capital .....	4
Linking Social Capital to Parenting and Youth Development .....	5
The Cascading Effect of Social Capital .....	5
The Connection between Social Capital and Supportive Parenting .....	6
The Overflowing Effect on Youth .....	6
The Identification of Youth Intrapersonal Protective Factors .....	7
The Current Study .....	8
METHODS .....	9
Sample .....	9
Data Collection .....	9
Measures .....	10
Social Capital .....	10
Supportive Parenting .....	10
The Carver Support Scale .....	10
Involved Nurturing Parent Scale .....	11
Family Support Inventory .....	11
Youth Intrapersonal Protective Processes .....	11
Protective Processes Composite .....	11
Child Self-Control Scale .....	12
The State Hope Scale .....	12
Perceived Life Chances Scale .....	13
HIV Risk Behavior Composite .....	13
Analysis Plan .....	13
RESULTS .....	14
DISCUSSION .....	15
Limitations .....	17
CONCLUSION .....	18
Implications for Future Preventative Interventions .....	18
Implications for Further Research .....	18
REFERENCES .....	20

## LIST OF FIGURES

Figure	Page
1. The Conceptual Framework.....	3
2. The Effect of Social Capital of Parents on Supportive Parenting, the Development of Youths' Intrapersonal Protective Processes and the Mediation of Engagement in HIV Risk Behaviors.....	15

African American youth are disproportionately affected by human immunodeficiency virus (HIV). Although African Americans represent only 13% of the general population of the United States, they account for nearly 48% of the total HIV prevalence (Centers for Disease Control and Prevention (CDC), 2006). African Americans under the age of 15 comprise 66% of male and 72% of female incidence of HIV among individuals in that age group (CDC, 2006). Additionally, previous research has shown that rurality further compounds disparity. Rural youth have been shown to be just as likely to engage in sexual risk behaviors as their urban counterparts, but have comparably higher rates of poverty and lower population densities, resulting in diminished availability of resources (Balarajan, Yuen, & Machin, 1987; Kogan, Berkel, Chen, Brody & Murry, 2006; Murry, Berkel, Brody, Gibbons & Gibbons, 2007; National Center for Educational Statistics, 2005; Watt, Franks & Sheldon, 1994). This lack of access places rural populations at particular risk of disparate rates of disease contraction.

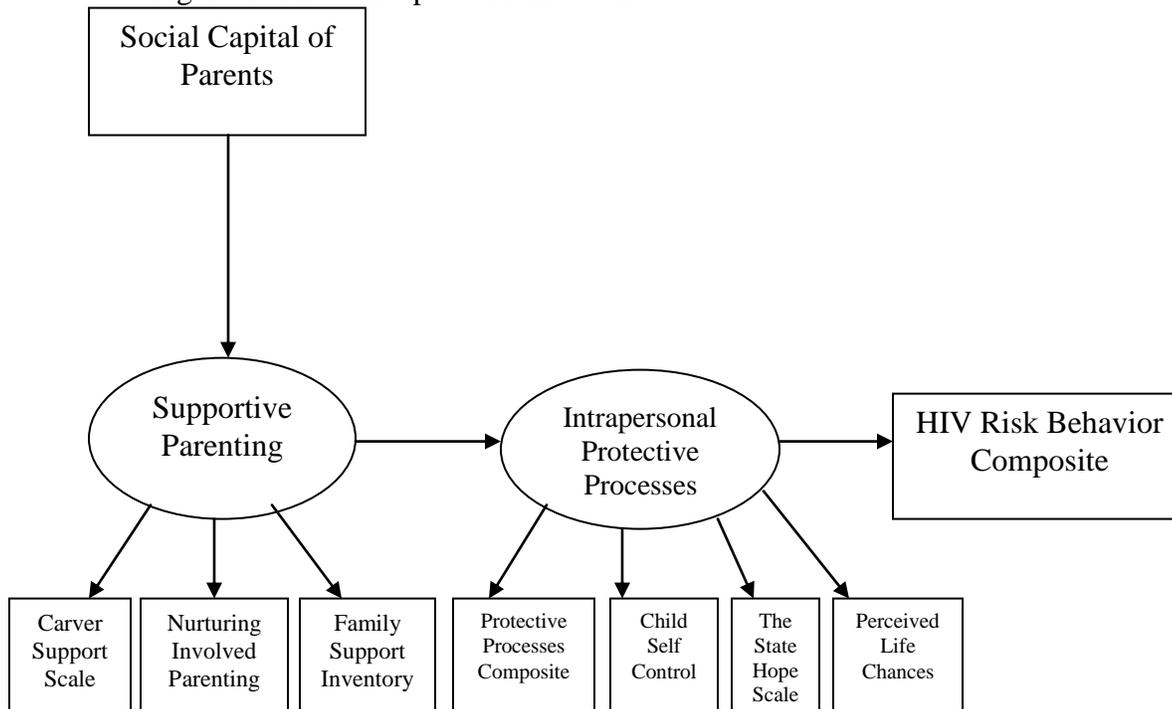
Despite these high risks, research has also demonstrated that parents have the ability to prevent their children's engagement in negative behaviors (Rankin & Quane, 2002; Walsh, Harel-Fisch, & Fogel-Grinvald, 2010). Instrumental and emotional support provided by parents shield youth from stressful life events by fostering intrapersonal protective processes—conditions that the literature has demonstrated can buffer engagement in risk behavior such as positive self-perception and self-efficacy (Li, Costanzo, & Putallaz, 2010; Tafarodi, Wild, & Ho, 2010). Additionally, research has shown that family and neighborhood contexts, particularly social capital, can influence supportive parenting techniques, such as parental monitoring (Rankin & Quane, 2002). Social capital, in essence, refers to the connections within and between parental social networks and their shared values and norms of behavior and has been

positively associated with both youth and parental outcomes (Furstenberg & Hughes, 1995; McNeal, 1999; Portes, 1998).

While a plethora of studies have documented the protective nature of particular parenting practices for reducing youth risk engagement, examinations into the impact of social capital of parents on youth risk engagement have only recently emerged. Over the past decade, however, social capital has been increasingly viewed as having a considerable impact on health, broadly conceived, in the United States and beyond (Almgren, Magarati, & Mogford, 2009; Altschuler, Somkin & Adler, 2004; Beaudoin, 2007; Hutchinson, Putt, Dean, Long, Montagnet & Armstrong, 2009; Gorman & Sivaganesan, 2007; Kawachi, Kennedy & Glass, 1999; Kim & Kawachi, 2006; Lochner, Kawachi, Brennan & Buka, 2003). Nevertheless, there exists a paucity of research that examines ways in which social capital fosters supportive parenting and how this, in turn, affects youths' ability to develop protective processes that mediate future HIV risk engagement (Rankin & Quane, 2002).

Therefore, the primary aim of this study is to better understand the mechanism through which social capital of parents heightens supportive parenting and the extent to which supportive parenting is associated with youth intrapersonal protective factors which is predicted to be associated with variability in incidences of HIV risk engagement, such as sexual activity, number of sexual partners, condom use and early onset substance use. In the current study, a heuristic path model was developed (Figure 1), influenced by social disorganization theory and further informed by Cicchetti's and Toth's (1995) conceptions of the ecology of development, with emphasis given to explaining how social capital of parents influences the trajectories of adolescents.

Figure 1: The Conceptual Framework



Sampson's (1992) conceptualization of social disorganization theory considers ways in which aspects of parenting that are related to family management practices evince protection for youth. These family management practices are especially beneficial to youth when they have access to a supportive community. In the current study, we view this resource as manifestation of parents' social capital and contend that it serves to extend familial resources by linking the family to a wider community support system. Social disorganization theory recognizes that individual deviations in social behaviors are a function of both individual- and community-level influences and that community social organization should be conceptualized in terms of the pervasiveness and correlative propensity of social networks in a community. Strong community ties or connections empower parents to enforce family management practices that buffer youth from engaging in problem behaviors. On the other hand, weaker ties to community networks

result in a diminished capacity parents to effectively engage in practices that foster social control, especially when families reside in high risk communities. A major component of social organization theory includes local social network ties, a dearth of social capital is therefore one of the principal features of socially disorganized communities (Coleman, 1990). This developmental perspective of social organization theory moves beyond a basic notion which postulates that the causes of problem behaviors are externally derived factors and, instead, stresses the intertwined nature of family and community dynamics. According to Cicchetti and Toth (1995) contextual factors faced by adolescents, including social support of parents and other environmental factors, significantly contributes to their future trajectory. Therefore, based largely on the work of Sampson (1992) and Cicchetti and Toth (1995), I theorize that social capital's impact on parenting will have an effect on the development of intrapersonal protective factors that may mediate youths' engagement in HIV risk behavior. In the following section, pertinent previous research that contributes to the development of the hypothesized model (Figure 1) of social capital's impact is explored.

## **Literature Review**

### **Brief Overview of the Conceptualization of Social Capital**

Iterations of social capital that emphasize the benefits of group cohesion have been concretized by modern thinkers, resulting in the emergence of cogent theories of social capital. The most widely used derivation of social capital is the conceptualization provided by Robert Putnam (1995), who defines social capital as “the collective value of all social networks and the inclinations that arise from these networks to do things for each other” (p. 67). Putnam's definition of social capital emphasizes social cohesion and views this as a key component to building and maintaining one's well-being. Therefore, while the distinguishing tenet of social

capital lies in the social cohesiveness of an individual's contextual community and emphasizes the relationships between individual actors, the exact form that social capital can take is multifarious. These multiple elements or forms of social capital principally referred to in the literature include the following: trust and reciprocity, social relationships and interactions, collective efficacy, and network resources.

### **Linking Social Capital to Parenting and Youth Development**

The aforementioned conceptualization of social capital has been used in a wide range of social science research and has been shown to be positively associated with a number of positive developmental outcomes in youth. For instance, Furstenberg and Hughes (1995) found that among youth who were particularly at risk for lifelong economic disadvantage, social capital was associated with resiliency and negotiation out of impoverishment. Additionally, research has shown that family characteristics, including parents' social relationships – a form of social capital – moderate the effect of parental monitoring on youth. Specifically, Rankin and Quane (2002) found that in neighborhoods with high levels of social capital as demonstrated by greater collective efficacy, high levels of facets of parental monitoring such as deviance intolerance, conventional values and parental involvement moderate the effect of neighborhood disadvantage whereas this effect is not found in neighborhoods with low collective efficacy.

As suggested by Requena (2003), the importance of social capital is that it brings together several sociological notions, such as social support, community ties, and social cohesion. This is further supported by Rothstein (2003) who posits that the obvious strength of social capital theory lies in the amalgamation of macro-sociological historical structures with micro-level casual mechanisms, which is largely absent in most social science theory. Research studies have demonstrated that the social capital of parents may have a profound effect on

parenting. A lack of social capital can compound poverty-related problems, for example by influencing family management practices, as families who are in resource poor social networks have less opportunity to rely on other social actors in times of need (Rankin & Quane, 2002; Furstenburg & Hughes, 1995). Social capital, then, seems especially significant when examining families at risk. In the next section, a review of studies illustrating ways in which social capital influences parenting processes, which in turn facilitate the development of protective factors, is provided. In addition, consideration is given to explaining the processes through which these protective factors mediate youths' engagement in HIV risk behaviors.

### **The Cascading Effects of Social Capital**

Individual, community and familial factors are known to predict problem behaviors in youth, but little research has been conducted that demonstrates how resources garnered by parents through community networking can foster positive youth outcomes. As shown in Figure 1, it is hypothesized in the current study that the social capital of parents will have a significant impact on how parents' engagement in family management practices will affect youths' propensity to engage in HIV risk behavior, by promoting competence, self-regulation, and resilience in youth.

### **The Connection between Social Capital and Supportive Parenting**

Research suggests that parenting processes are embedded in larger community contexts and the specific pathways through which social capital can affect parenting are multiple and nuanced (Jencks & Mayer, 1990; Sampson, 1997). For instance, family management practices (e.g., parental monitoring) have been shown to be associated with increased community social cohesion and organization. That is, when parents are nested in communities where other adults are available to provide support, assist with monitoring and supervising their children, they are

more likely to engage in competence promoting parenting (Brody, Murry, et al., 2004). Lack of access to community social ties and being nested in communities that are characterized as lacking social cohesion affects the extent to which parents are able to develop informal social control networks. Further, lack of access to community social support reduces the impact of residing in a community in which there is no consensus regarding norms and standards for appropriate behavior (Brody, et al., 2001; Bursik & Grasmick, 1993; Sampson & Groves, 1989; Sampson, Raudenbush & Earls, 1997; Choi, Harachi & Catalano, 2006; Sampson, 1997).

Relatedly, Duncan and Raudenbush (2001) assert that families may serve as mediators between community context and youth developmental trajectories, because communities affect family processes which, in turn, affect youths' conduct. Moreover, a positive relationship between high levels of social capital of parents has been shown to reduce or negate harsh and non-nurturing parenting behaviors (Fram, 2003; Klebanov, Brooks-Gunn & Duncan, 1994).

### **The Overflowing Effect of Parental Social Capital and Parenting on Youth Developmental Outcomes**

The specific pathways through which the social capital of parents may affect parenting practices can be gleaned from a few studies. According to Guo and Mullan-Harris (2000), effective parenting mediates the potential negative effects of poverty on children's development. That is, the negative consequences of poverty are less likely to compromise youths' development, when they are reared in households that are characterized as warm, nurturing, and with clearly articulated norms and expectations regarding prosocial behavior (Murry, Berkel, et al., 2009). Further, Rankin and Quane (2002) reported that parental supervision buffered youth from succumbing to risk opportunities that are often available to youth who reside in communities of high crime, violence, and easy drug access. In addition, the connection between

social processes, such as an increased level of collective efficacy and a reduced propensity to engage in early delinquency (Tolan, Gorman-Smith & Henry, 2003) also has been demonstrated. Finally, a few studies have shown that parental characteristics, such as frequent church attendance and affiliation with religious groups, are thought to be aspects of parental social capital, and have been associated with lower levels of internalizing and externalizing problems in youth (Brody, Stoneman, & Flor, 1996; Wills, Yaeger & Sandy, 2003; Rgnerus, 2003).

### **The Identification of Youth Intrapersonal Protective Factors**

While some research has been conducted that shows a connection between social capital, parenting and youth health outcomes (Harpham, De Silva, & Tuan, 2006), little research has been undertaken to examine the linkages among social capital, parenting, and youth intrapersonal protective processes (such as self-regulation, resistance efficacy), and the extent to which these processes buffer youth from risk behavior to deter early sexual onset and initiation and escalation of substance abuse. Existing research has, however, demonstrated that there are a number of youth-specific protective factors that mediate engagement in risk behavior including future orientation, and self and emotional regulation (Bandura, 1997; Barkley, 1997; Murry & Brody, 1999; Raffaelli & Crockett, 2003; Willis, Sandy, & Yaeger, 2001;). In contrast, research has shown that youth who are focused less on the future and more on the present are more likely to engage in high-risk sexual activity, substance use, aggressive behavior and reckless driving (Bolland, 2003; Robbins & Bryan, 2004; Willis, Sandy, & Yaeger, 2001). Future orientation among preadolescents has also been found to support effective coping and resistance efficacy which has been shown to deter early-onset substance abuse (Willis, Sandy, & Yaeger, 2001). In addition, self-regulation (the ability to set and attain goals, plan actions and consider their consequences) has been demonstrated to predict sexual behavior and substance abuse (Bandura,

1997; Barkley, 1997; Raffaelli & Crockett, 2003; Willis, Sandy, & Yaeger, 2001). However, there is a dearth of research that explicitly explains the implications of parental social capital on parenting practices that affect the development of intrapersonal processes in youth. While the literature has shown a connection between social capital and supportive parenting and the effect of supportive parenting on youth, there is a gap in the literature regarding ways in which social capital impacts supportive parenting and how, in turn, supportive parenting affects the development of specific protective youth processes that have been demonstrated to stem HIV risk engagement.

### **The Current Study**

The existing literature suggests a relationship between social capital of parents and supportive parenting, supportive parenting and youth outcomes, and the identification of certain intrapersonal protective processes that mediate HIV risk engagement. Also, the pathways through which social capital affects supportive parenting have been explored. However, there exists a lack of research that links these constructs to formulate a cogent explication as to the rippling effect of social capital to cascade from parents to youth. The current study, as reflected in the heuristic model, is informed by the major tenets of social disorganization theory as extended by Sampson (1992) that emphasizes the importance of social capital to enhance civic organization and views social behavior as embedded in the community rather than individually derived. I aim to examine these connections via secondary data analysis of an ongoing preventive intervention not specifically designed to study the effects of social capital in an attempt to better understand the direct and overflowing impact of social capital on distal youth outcomes related to HIV risk engagement. More specifically, I hypothesize that social capital of parents is cascading in nature and will have an effect on parenting and, in turn, youth. Therefore,

it is hypothesized that social capital of parents will be associated with increased supportive parenting, which will, in turn, forecast increase youth intrapersonal protective processes. I predict that parental social capital and supportive parenting will indirectly buffer youth from HIV risk engagement through its affect on youth intrapersonal protective processes.

## **Methods**

### **Sample**

The participants in this study consisted of 332 African American families which included caregivers (one per family) and their children who were 11 years old at the time of initial recruitment. These participants were recruited as a part of the Strong African American Families (SAAF) Project, which was designed to assess factors related to HIV and STI-related risk behaviors among African American adolescents in rural areas of Georgia. A total of nine rural counties were selected based on their rural classification status as defined by the Office of Budget and Management (non-metro) and the proportion of African American families that reside in the area (at least 25% percent of population). Within the targeted counties, families live in small communities in which poverty rates are disproportionately high.

### **Data Collection**

In order to recruit families to the study, class lists of 5<sup>th</sup> grade African American students were obtained from middle schools in each selected county. Students were then randomly ordered to determine the sequence in which families were contacted for eligibility screening. The recruitment process was conducted in the following sequence: 1) a letter was mailed to all parents/guardians informing them about the study; 2) a community liaison (well-known local community leaders) either contacted families by phone or visited families' homes to provide information about the study; and 3) eligible families were invited to participate, with active

consent obtained from caregivers and assent from youth. African American interviewers received more than 27 hours of training in the administration of computer-based survey techniques. The surveys were administered via a laptop computer and were administered by an interviewer. Pre-testing was conducted one month before the SAAF sessions began, and post-testing occurred three months after the participants had successfully completed the program. Additionally, long-term follow up assessments were administered 29 months later. Both caregiver and youth participants received a stipend for their participation at each data collection point. These procedures were approved by the Institutional Review Board at the University of Georgia.

## **Measures**

**Social Capital.** To measure social capital the social provisions scale developed by Cutrona and Russell (1987) was used. The scale consisted of five items (e.g. you can depend on people in your community; you feel you could turn to people). The responses ranged from 0 (strongly disagree) to 3 (strongly agree). Cronbach's alpha for this scale was .87.

**Supportive Parenting.** To measure supportive parenting three scales were used: the Carver Support Scale, the Nurturing-Involved Parenting Scale and the Family Support Inventory.

***The Carver Support Scale.*** The Carver Support Scale, (Carver, Scheier, & Weintraub, 1989), measures parents' perceptions of their supportiveness towards their child. The scale consists of three subscales of which I used the parent support subscale. This subscale consisted of four items (e.g. your child discusses his/her feelings with you, your child gets emotional support from you, your child gets sympathy) and the responses ranged from 1 (not at all true) to 5 (very true). Cronbach's alpha for this subscale was .91.

***The Nurturing-Involved Parenting Scale.*** The Nurturing-Involved Parenting Scale was developed by Conger, Ge, Elder, Lorenz and Simons (1994) in an attempt to better understand

the extent of encouraging and concerned parenting exhibited by caregivers. This scale consisted of 9 items (e.g. how often do you know where your child is, how often do you know who your child is with) and the responses range from 1 (never) to 4 (always). Cronbach's alpha for this scale was .83.

***The Family Support Inventory.*** The Family Support Inventory (Halvorsen, 1991) seeks to ascertain the parental perception of the youths' ability to gain support from the caregiver. The scale consisted of 11 items (e.g. your child can share his/her feelings with you, your child feels that he/she can trust you as someone to talk to) and the responses ranged from 1 (not at all true) to 5 (very true). Cronbach's alpha for this scale was .94.

**Youth Intrapersonal Protective Processes.** The degree to which the youth participants had developed intrapersonal protective processes was measured via the Protective Processes Composite, the Child Self-Control Scale, the State Hope Scale, and the Perceived Life Chances Scale.

***Protective Processes Composite.*** The Protective Processes Composite consisted of four subscales: Future-Oriented Goals, Resistance Efficacy, Negative Images of Drinkers, and Negative Attitudes toward Alcohol Use. The Future-Oriented subscale consisted of five items and was developed by Brody, Murry, Gerrard, Gibbons, Molgaard, McNair, et al. (2004). The measure attempts to assess the ability to set, sustain and achieve goals for the future (e.g., I think about goals I want to reach) and the responses ranged from 0 (not true) to 2 (very true). Cronbach's alpha for the future orientation subscale was .74. The Resistance Efficacy subscale, developed by Wills, Gibbons, Gerrard, & Brody (2000), asks adolescent participants to indicate their responses to the following scenario: "You're with kids who get some beer. Your friend takes a beer and asks if you want one. What would you probably do in this situation?" The

response categories were: 1=I would take the beer and drink it, 2=I would say, “Not now, maybe some other time”, and 3=I would say “No” and not drink it. The scenario was replicated for both cigarette smoking and marijuana use. Cronbach’s alpha for this subscale was .81. The third subscale measured negative attitudes towards drinkers and was developed by Gibbons and Gerrard (1997). Adolescent participants responded to the following scenario: “Take a moment to think about the type of kid your age who drinks.” This was followed by seven questions with the stem, “How [descriptor] are they?” The descriptors were popular, careless, smart, cool, attractive (good looking), immature (childish), and dull (boring) and responses ranged from 1-4 (1=not at all to 4=very). Cronbach’s alpha for this subscale was .65. The fourth and final subscale, developed by Jessor and Jessor (1997), measured adolescents negative attitudes toward drinking alcohol. The subscale consisted of the following three items in which the adolescent participants indicated their responses on a 0 (not true) to 2 (very true or often true) scale: I am not like young people who drink or take drugs; I don’t have a high opinion of kids who drink or take drugs; and My friends don’t have a very high opinion of kids who drink or take drugs. Cronbach’s alpha for this subscale was .78.

***The Child Self-Control Scale.*** The Child Self-Control Scale (Humphrey,1982) consisted of 5 items (e.g. how often do you stick to what you are doing even during long, unpleasant tasks until you are finished). The items had a response set from 0 (never) to 4 (almost always). Cronbach’s alpha for this scale was .83.

***The State Hope Scale.*** The State Hope Scale consisted of six items with responses ranging from 1 (really false) to 8 (definitely true). This scale, developed by Snyder, Sympton, Ybasco, Borders, Babyak and Higgins (1996), aimed to measure youths’ self-perceptions regarding their abilities and resiliency and included questions like: If I should find myself in a

jam, I could think of many ways to get out of it; at the present time I am energetically pursuing my goals; there are lots of ways around any problem that I am facing now. Cronbach's alpha for this scale was .85.

***The Perceived Life Chances Scale.*** The Perceived Life Chances Scale consisted of 10 items and responses ranged from 1 (very high) to 5 (very low). Respondents were asked, "Think about your future—what are the chances that: you will graduate from high school, you will go to college, you will have a job that pays well, you will be able to own your own home, you will have a job that you enjoy doing, you will have a happy life, you will stay in good health most of the time, you will be able to live wherever you want to in the country, you will be respected in your community, you will have good friends you can count on." Cronbach's alpha for this scale was .88.

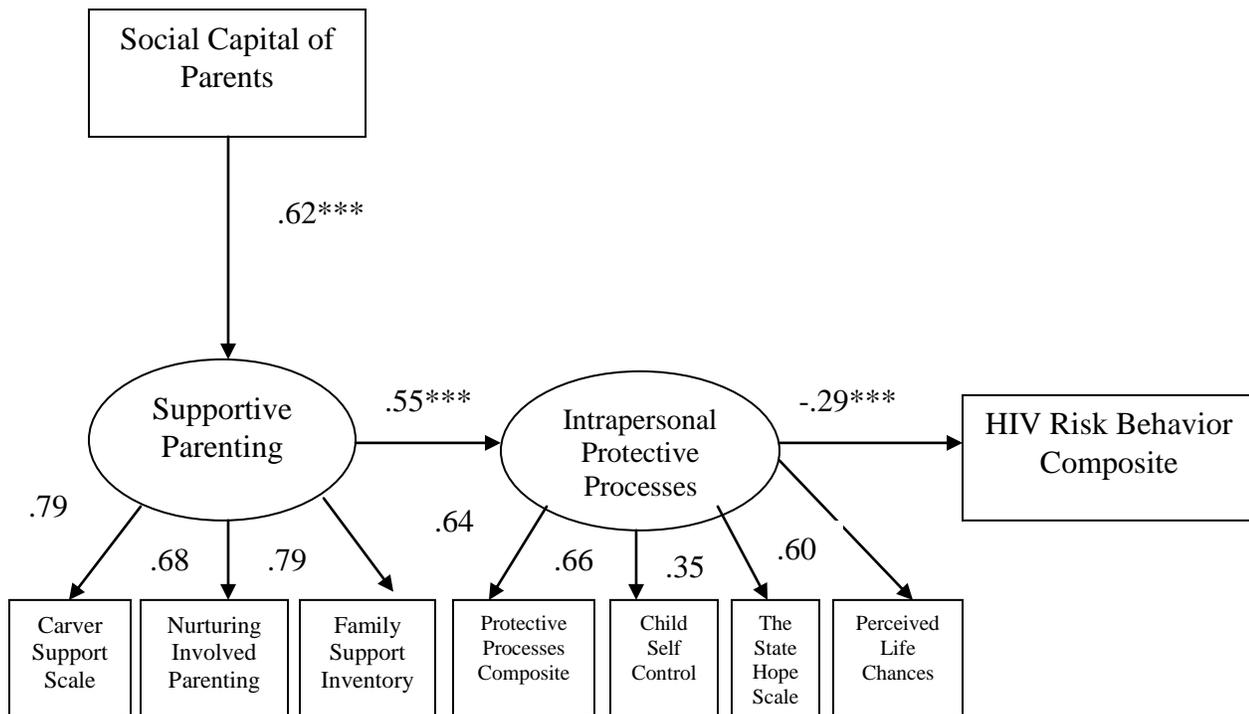
**HIV Risk Behaviors Composite.** The HIV Risk Behavior Composite Index consisted of items that measured both alcohol use and sexual risk behavior. The items that assessed youth sexual behavior patterns included: have you ever had sex (defined as vaginal/penile penetration); if they had ever had sex, how frequently did they have sex during the past month; and, if they had ever had sex, did they use a condom. Cronbach's alpha for this subscale was .70. The scale that measured alcohol use included three items: have you ever, in your life, consumed an entire alcoholic drink; have you consumed an entire alcoholic drink in the past month; and have you ever drunk three or more alcoholic drinks at one time (to assess for binge drinking). Cronbach's alpha for this subscale was .70.

### **Analysis Plan**

Descriptive analyses for each of the variables included in the study (e.g. range, mean and standard deviation where applicable) were conducted. Additionally, the hypothetical model

presented in Figure 1 was analyzed via SEM Amos 5.0 software (Arbuckle, 2003) which uses the full information maximum likelihood (FIML) estimation method. FIML does not delete cases for which data are missing from one or more waves of data collection, nor does it delete cases for which data are missing for a variable within a wave of data collection. This method thus avoids potential problems, such as biased parameter estimates, that are more likely to occur if pairwise or listwise deletion procedures are used to compensate for missing data (Arbuckle & Wothke, 1999). Figure 2 presents the results of the test of the path model.

Figure 2: The Effect of Social Capital of Parents on Supportive Parenting, the Development of Youths' Intrapersonal Protective Processes and the Mediation of Engagement in HIV Risk Behaviors



$\chi^2_{(26)} = 93.04$   $p = .000$ ; CFI = .943; TLI = .921; RMSEA = .067 (.053, .082)

\*\*\*  $p < .001$

### Results

At the time of first data collection, the mean age of the youth participants was 11.21 (SD: 0.41 years) and the mean age of the caregiver was 37.7 years (SD: 7.62 years). Additionally, the mean monthly income per family was approximately \$509 (SD: \$411). Most of the caregivers reported being employed outside of the home (74%), and worked an average of almost 40 hours per week. However, 41% of the families who participated in SAAF lived below the federal poverty threshold and 26% lived within 150% of the established federal poverty line.

As previously noted, SEM was used to test the cascading effect of parental social capital on youth engagement in sexual risk behaviors. Figure 2 presents the results of the test of the structural model. Overall, the model fit the data well. All indicators loaded significantly on their latent constructs, supporting the measurement model's adequacy. All loadings manifest indicators of corresponding latent constructs were significant ( $p < .001$ ) and all the coefficients except for one (the State Hope Scale) were above .50, demonstrating the model's adequacy. As expected, the positive, significant factor loadings of the measures associated with supportive parenting and youth intrapersonal protective processes confirm their validity as indices of both the latent constructs.

After determining that the measurement model fit the data as specified, the structural model was tested. The overall fit was good: ( $\chi^2 = 93.04, p = .001$ ). The comparative fit index (CFI) was .93 and the root mean square of approximation (RMSEA) was .067 (90% confidence interval [CI]: .053-.082). As hypothesized, social capital was significantly and positively associated with supportive parenting ( $\beta = .62, p < .001$ ), and supportive parenting was also significantly and positively associated with youth intrapersonal protective processes ( $\beta = .55, p < .001$ ). Finally, youth intrapersonal protective processes was negatively associated with risk

engagement indicating that youth who had higher levels of intrapersonal protective processes were less likely to engage in risky behavior ( $\beta = -.29, p < .001$ ).

### **Discussion**

Given the highly disparate rate of HIV contraction among rural African American youth and the literature that supports the impact of community contexts, including social capital of parents, on youths' behavior, in the current study, we hypothesized that social capital was cascading in nature and that parental social capital would have an effect on the development of youths' intrapersonal protective factors that have been shown to mediate HIV risk engagement. The current study's results support these hypotheses and finds that, in fact, social capital of parents does have a profound effect on youth. More specifically, this study demonstrates that social capital of parents fosters the development of supportive parenting techniques which aids in the development of youths' intrapersonal protective factors and mediates engagement in HIV risk behaviors. This supports previous research that has demonstrated the value of a supportive social environment on the development of effective parenting techniques such as parental monitoring, the development of nurturing relationships and the fostering of supportive environments for youth (Abidin, 1992; Andresen & Telleen, 1992; Causby, Nixon & Bright, 1991; Cutrona & Troutman, 1986; Kotchick, et al., 2005; Lee, 2009). Additionally, these findings support literature that has shown, relatedly, that social support may lessen the impact and stress related to parenthood (Spieker & Bensley, 1994), and, therefore, aids in the creation of supportive parenting techniques that positively affect youth. The salience of supportive parenting has also been the emphasis of many studies and parenting interventions. For example, Baumrind (1989) found that the degree to which a parent is supportive impacts the psychosocial functioning of their child in that it promotes positive adjustment. For example, research has

shown that youth who have high levels of parental support have high academic scores and engage less in delinquent behavior (Cutrona, Cole, Colangelo, Assouline, & Russell, 1994; Barnes & Farrell, 1992).

Finally, this study found that measures of youth intrapersonal protective processes are negatively associated with risk engagement. This means that higher levels of intrapersonal protective processes including self-regulation, resistance efficacy and the ability to be mindful of the future are correlated to lower levels of risk engagement such as early sexual debut and risky sexual behavior. This supports previous literature that has shown that those more likely to engage in risky behavior have lower levels of protective processes such as self-regulation (Brody, Murry, Gerrard, Gibbons, McNair, Brown et al, 2006; Oshio, et al., 2003; Murry, Berkel, Brody, Gerrard & Gibbons, 2007; Wang, Hsu, Lin, Cheng & Lee, 2010). Therefore, as youths' intrapersonal protective factors develop the less likely they are to engage in behaviors that may result in diminished health as an increase in protective factors such as self-regulation, resistance efficacy or monitoring the future increase youth have an increased ability to weigh the consequences of their actions and make a concerted decision to refuse to engage in negative behavior.

Findings from this study also lend support to the developmental perspective of social disorganization theory, and previous work done by Cicchetti and Toth on which the current study was theoretically and conceptually based in that the current study demonstrates that social capital impacts parenting and, in turn leads to increased intrapersonal protective processes that mitigate participation in HIV risk behaviors. Additionally, this study provides a clear understanding of the specific role of social capital as it relates to family and demonstrates the importance of the

social relationships of parents for youth as it specifically relates to engagement in risky sexual behavior.

These findings represent a unique contribution to the literature as few other studies have examined the cascading effects of parental social capital on the development of youth intrapersonal protective processes via supportive parenting that mediate sexual risk behaviors. This study highlights the importance of social capital of parents on the trajectory of youth who are more likely to engage in HIV risk behavior and is especially salient for communities who are disadvantaged, lack access to health services or economic resources and who are most at risk such as rural African American families.

**Study Limitations.** One possible limitation is that the sample that this study drew upon is relatively small. The sample size required to detect large effect sizes in distal mediational models may be greater than rural African American communities can easily provide (Shrout, & Bolger, 2002). However, a possible solution to this problem may be the employment of multi-site studies that alleviate the challenge presented by thinly populated areas. Additionally, secondary caregivers, particularly fathers, are under-represented in this study. Therefore, further research is needed to better understand the impact of fathers' social capital and how that impacts youth. It is also important to note the constraints of using secondary data to examine an issue for which the intervention in which the sample was selected from was not designed to specifically capture. Therefore, it would be useful to conduct a similar study with the explicit purpose of evaluating the cascading nature of social capital within families and the impact on youth and their future progression.

Finally, as noted previously social capital can take many forms and has multiple definitions. The measure of social capital that was used for this study views social capital

primarily as the perceived connectedness of parents to their community and their perceived ability to garner support if they were in need and did not measure other typical components of social capital such as reciprocity, neighborhood affiliation or membership. Additionally, the conceptualization of social capital relied upon for this study is based solely on Putnam's definition and does not acknowledge social capital as outlined by Bourdieu or other social capital scholars. Therefore, the measure used in this study is in no way a complete measure of all the different kinds of forms of social capital, and, in fact, a more comprehensive measure of social capital or one that measures a different tenet of social capital may yield altogether different results.

### **Implications for Future Preventative Interventions**

Results from the current study can inform interventions focusing on improving community support and social ties for parents as an avenue to aid in the development of supportive parenting techniques and, in turn, buffer youth from engaging in risky behaviors by fostering the development of intrapersonal protective processes. These types of interventions may be particularly relevant to families who reside in economically disadvantaged or socially fractured neighborhoods. One example of a possible intervention is one in which collective action via issues pertinent to parents, such as neighborhood conditions, schools or other community issues, is utilized to aid in social cohesion, and, therefore will increase parent's access to social capital. Additionally, social support groups may facilitate an increase in the social capital of parents and foster the development of supportive parenting, and in turn, affect their children's developmental trajectories and propensity to engage in HIV risk behavior in the future. Finally, interventions that seek to increase access to mechanisms for and awareness of social capital via group membership, social relationship building, and community cohesiveness

should be employed to foster the development of parental social capital within at-risk families within economically depressed, rural communities.

### **Implications for Further Research**

Further research should be conducted that utilizes the different definitions or forms of social capital, such as group membership, social cohesion, and reciprocity, to better understand how these varied types of social capital distinctly affect parents, and in turn, youth. For instance, further research is needed to better understand whether parental group membership or perceptions of reciprocity have the same ability to cascade throughout families and affect youth. Additionally, research is needed that attempts to decipher the specific tenets of social capital that have the largest impact on the development of supportive parenting practices. The results of the current study demonstrate that parental perception of the quality of their social relationships has a direct relationship with supportive parenting, development of youth intrapersonal protective processes, and a decreased propensity to engage in HIV risk behavior, but the use of a more comprehensive measure of social capital would make it possible to parse out the different elements of social capital and measure their independent contributions to youth outcomes. Finally, future studies should replicate the study in different (e.g. urban settings) environments to determine if these findings are specific to rural populations.

## References

- Almgren, G., Magarati, M. and Mogford, L. (2009). Examining and the influences of gender, race, ethnicity social capital on the subjective health of adolescents. *Journal of Adolescence*. 32(1). 109-133.
- Altschuler, A., Somkin, C. P., & Adler, N. E. (2004). Local services and amenities, neighborhood social capital, and health. *Social Science & Medicine*, 59(6), 1219-1229. doi: 10.1016/j.socscimed.2004.01.008 S0277953604000103 [pii].
- Arbuckle, J.L. (2003). *AMOS 5.0 update to the AMOS user's guide*. Chicago, IL: Smallwaters.
- Arbuckle, J.L. & Wothke, W. (1999). *AMOS 4.0 user's guide*. Chicago: IL: Smallwaters.
- Balarajan, R., Yuen, P., and Machin, D. (1987). Socioeconomic differentials in the uptake of medical care in Great Britain. *Journal of Epidemiology and Community Health*, 41, 196-199.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Barkley, R.A. (1997). Behavioral inhibition, sustained attention, and executive functions: Constructing a unifying theory of ADHD. *Psychological Bulletin*, 121, 65-94.
- Baumrind, D. (1989). Rearing competent children, in: W. DAMON (Ed.) *Child Development Today and Tomorrow*, pp. 349-378. San Francisco: Jossey-Bass.
- Beaudoin, C. E. (2007). Social capital and health status: assessing whether the relationship varies between blacks and whites. *Psychology & Health*, 24(1), 109-118. doi: 787313418 [pii] 10.1080/08870440701700997.
- Bolland, J.M. (2003). Hopelessness and risk behavior among adolescents living in high-poverty inner-city neighbourhoods. *Journal of Adolescence*, 26, 145-158.

- Brody, G.H., Murry, V.M., Gerrard, M., Gibbons, F.X., McNair, L., Brown, A.C., Willis, T.A., Molgaard, V., Spoth, R.L., Luo, Z., & Chen, Y.F. (2006). The Strong African-American families program: Prevention of youths' high-risk behavior and a test of a model of change, *Journal of Family Psychology*, 20, 1-11.
- Brody, G.H., Ge, X., Kim, S., Murry, V.M., Simons, R.L., Gerrard, M., et al. (2001). Neighborhood disadvantage moderates associations of parenting and older sibling problem attitudes and behavior with conduct disorders in African American children. *Journal of Consulting and Clinical Psychology*, 71(2), 211-222.
- Brody, G.H., Murry, V.M., Gerrard, M., Gibbons, F.X., Molgaard, V., McNair, L. (2004). The Strong African American Families Program: Translating research into prevention programming. *Child Development*, 75, 900-917.
- Brody, G.H., Stoneman, Z., & Flor, D. (1996). Parental religiosity, family processes and youth competence in rural, two-parent African American families. *Developmental Psychology*, 32(4), 696-706.
- Bursik, R.J., Jr., & Grasmick, H.G. (1993). *Neighborhoods and Crime: The Dimensions of Effective Community Control*. New York, NY: Lexington Books.
- Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267-283.
- Cicchetti, D., & Toth, S.L. (1995). A developmental psychopathology perspective on child abuse and neglect. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34(5), 541-565.

- Conger, R., Ge, N., Elder, G.H., Lorenz, F.O., & Simons, R.L. (1994). Economic stress, coercive family process, and developmental problems of adolescents, *Child Development*, 65, 541-561.
- Centers for Disease Control and Prevention (CDC). (2006). Racial/ethnic disparities in diagnoses of HIV/AIDS—33 states, 2001-2004. *Morbidity and Mortality Weekly Report*, 55, 121-125.
- Choi, Y., Harachi, T. W., & Catalano, R. F. (2006). Interplay of Neighborhood Risk Factors and Family Protective Factors against Substance Use: Comparisons of the relations across European-, African-, Asian American and Multiracial Youth. *Social Service Review*, 675-704.
- Cutrona, C.E., & Russell, D. (1987). The provisions of social relationships and adaptations to stress. In W.H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 1, pp., 37-67). Greenwich, CT: JAI Press.
- Duncan, G.J., & Raudenbush, S. (2001). Neighborhoods and adolescent development: how can we determine the links? In *Does It Take a Village? Community Effects on Children, Adolescents, and Families*, ed. A. Booth and A. C. Crouter, 105-36. State College, Penn.: Pennsylvania State University Press.
- Fram, M.S. (2003). Managing to parent: Social support, social capital and parenting practices among welfare-practicing mothers with young children. Madison, WI: Institute for Research on Poverty.
- Furstenberg, F., & Hughes, M.E. (1995). Social capital and successful development among at-risk youth. *Journal of Marriage and Family*, 57(3), 580-592.

- Gibbons, F.X., & Gerrard, M. (1997). Health images and their effects on health behavior: Social comparison and social influence. In B. Buunk & F.X. Gibbons (Eds.), *Health, Coping and Well-being: Perspectives from social comparison theory* (pp. 63-94). Hillsdale, NJ: LEA.
- Gorman, B. K., & Sivaganesan, A. (2007). The role of social support and integration for understanding socioeconomic disparities in self-rated health and hypertension. *Social Science & Medicine*, 65(5), 958-975. doi: S0277-9536(07)00207-9 [pii] 10.1016/j.socscimed.2007.04.017.
- Guo, G., Mullan-Harris, M.K. (2000). The mechanisms mediating the effects of poverty on children's intellectual development. *Demography*, 37, 431-447.
- Halvorsen, J.G. (1991). Self-report family assessment instruments: An evaluative review. *Family Practice Research Journal*, 11(1), 21-55.
- Harpham, T., DeSilva, M.J., & Tuan, T. (2006). Maternal social capital and child health in Vietnam. *Journal of Epidemiology and Community Health*, 60(10), 65-871.
- Hutchinson, R. N., Putt, M. A., Dean, L. T., Long, J. A., Montagnet, C. A., & Armstrong, K. (2009). Neighborhood racial composition, social capital and black all-cause mortality in Philadelphia. *Social Science & Medicine*, 68(10), 1859-1865. doi: S0277-9536(09)00085-9 [pii] 10.1016/j.socscimed.2009.02.005.
- Humphrey, L. L. (1982). Children's and teachers' perspectives on children's self-control: The development of two rating scales. *Journal of Consulting and Clinical Psychology*, 50(5), 624-633.
- Jessor, R., & Jessor, S.L. (1997). *Problem behavior and psychosocial development: A longitudinal study of youth*. New York: Academic Press.
- Jencks, C., & Mayer, E. (1990). The social consequences of growing up in a poor neighborhood.

- In L. J. L. & M. G. H. McGeary (Eds.), *Inner-city poverty in the united states* (pp. 111-186). Washington, D.C.: National Academy Press.
- Kawachi, I., Kennedy, B. P., & Glass, R. (1999). Social capital and self-rated health: a contextual analysis. *American Journal of Public Health, 89*(8), 1187-1193.
- Kim, D., & Kawachi, I. (2006). A multilevel analysis of key forms of community- and individual-level social capital as predictors of self-rated health in the United States. Klebanov, Brooks-Gunn, & Duncan. (1994).
- Kogan, S.M., Berkel, C., Chen, Y.F., Brody, G., & Murry, V. (2006). Metro status and African American adolescents' risk for substance use. *Journal of Adolescent Health, 38*, 454-457.
- Lochner, K., Kawachi, I., & Kennedy, B. P. (1999). Social capital: a guide to its measurement. *Health Place, 5*(4), 259-270. doi: S1353829299000167 [pii]
- Mcneal, R.B., Jr. (1999). Parental involvement as social capital: Differential effectiveness on science achievement, truancy and dropping out, *Social Forces, 78*(1), 117-144.
- Murry, V., Berkel, C., Brody, G., Gibbons, M., & Gibbons, F.X. (2007). The strong African American families program: Longitudinal pathways to sexual risk reduction. *Journal of Adolescent Health, 41*, 333-342.
- Murry, V. & Brody, G. (1999). Self-regulation and self-worth of black children reared in economically stressed, rural, single mother-headed families: The contribution of risk and protective factors. *Journal of Family Issues, 20*, 456-482.
- National Center for Health Statistics. (2005). *Youth indicators, 2005: Trends in the well-being of American youth* (No. NCES 2005-050). Washington, D.C.: Department of Education.
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology, *Annual Review of Sociology, 24*, 1-24.

- Putnam, R. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, 6, 65-78.
- Raffaelli, M., & Crockett, L.J. (2003). Sexual risk taking in adolescence: The role of self-regulation and attraction to risk. *Developmental Psychology*, 39, 1036-1046.
- Rankin, B.H. & Quane, J. (2002). The interrelated effects of neighborhoods, families and peers on African American Youth. *Social Problems*, 49(1), 79-100.
- Requena, F. (2003). Social capital, satisfaction and quality of life in the workplace. *Social Indicators Research*. 61(3). 331-360.
- Robbins, R.N., & Bryan, A. (2004). Relationships between future orientation, impulsive sensation seeking, and risk behavior among adjudicated adolescents. *Journal of Adolescent Research*, 19(4), 428-445.
- Rothstein, B. (2003). Social capital, economic growth and quality of government: The casual mechanism. *New Political Economy*. 8. 49-71.
- Sampson, R.J. (1992). Family management and child development: Insights from social disorganization theory. In J.McCord (Ed.), *Facts, frameworks, and forecasts: Advances in Criminological Theory* (pp. 63-94). New Brunswick, NJ: Transaction Publishers.
- Sampson, R.J. (1997). Collective regulation of adolescent misbehavior: Validation results from eight Chicago neighborhoods. *Journal of Adolescent Research*, 12, 227-244.
- Sampson, R.J., & Groves, W.B. (1989). Community structure and crime: Testing social-disorganization theory. *American Journal of Sociology*, 94(4), 774-802.
- Sampson, R.J., Raudenbush, S.W., & Earls, F. (1997). Neighborhoods and violent crime: A multi-level study of collective efficacy. *Science*, 277, 918-924.

- Snyder, C.R., Sympson, S.C., Ybasco, F.C., Borders, T.F., Babyak, M.A., & Higgins, R.L. (1996). Development and validation of the state hope scale. *Journal of Personality and Social Psychology, 70*(2), 321-335.
- Talfarodi, R.W., Wild, N., & Ho, C. Parental authority, nurturance, and two-dimensional self-esteem. *Scandinavian Journal of Psychology, 51*(4), 294-303.
- Tolan, P.H., Gorman-Smith, D., Henry, D.B. (2003). The developmental ecology of urban males' youth violence. *Developmental Psychology, 39*(2), 274-291.
- Walsh, S. D., Harel-Fisch, Y., & Fogel-Grinvald, H. (2010). Parents, teachers and peer relations as predictors of risk behaviors and mental well-being among immigrant and Israeli born adolescents. *Social Science & Medicine, 70*, 976-984.
- Wang, R.H., Hsu, H.Y., Lin, S.Y., Cheng, C.P., & Lee.S.L. (2010). Risk behaviors among early adolescents: Risk and protective factors. *Journal of Advanced Nursing, 66*(2), 313-323.
- Watt, I.S., Franks, A.J., & Sheldon, T.A. (1994). Health and health care of rural populations in the UK: is it better or worse? *Journal of Epidemiology and Community Health, 48*, 16-21.
- Willis, T.A., Sandy, J.M., & Yaeger, A.M. (2001). Time perspective and early-onset substance use: A model based on stress-coping theory. *Psychology of Addictive Behaviors, 15*(2), 188-125.
- Wills, T.A., Gibbons, F.X., Gerrard, M., & Brody, G.H. (2000). Protection and vulnerability processes relevant for early onset substance use: A test among African American children, *Health Psychology, 19*, 253-263.